

would belong at one time of its life to the one and at another time to the other.

EXPLANATION OF PLATE XV. A.

- Fig. 1. Dexamine antarctica.* 1 *a.* First gnathopod. 1 *b.* Second gnathopod. 1 *c.* Third pereopod. 1 *d.* Hand and finger of third pereopod, more highly magnified.
Fig. 2. Seba Saundersii. 2 *a.* First gnathopod. 2 *b.* Second gnathopod. 2 *c.* Fifth pereopod.
Fig. 3. Spheroma algoense. 3 *a.* Underside of tail-piece.

XXIV.—*Descriptions of some new North-American Lithobioidæ.* By ANTON STUXBERG.

1. *Lithobius monticola*, n. sp.

Lamina cephalica subcircularis, eadem fere latitudine ac longitudine, margine postico subrecto, setis punctisque impressis sparse prædita. *Antennæ* mediocres, articulis 20 maximam partem cylindræis, setis rigidis vestitis compositæ. *Oculi* longitudine triplo majore quam altitudine, ocellis 7–9 in 2 series longitudinales digestis. *Coxæ* pedum maxillarium secundi paris dentibus 6 + 6 conicis, acutiusculis, nigerrimis armatæ. *Scuta dorsualia* rugulosa, sparsissime pilosa, 2°, 4°, 6°, 7°, 9°, 11°, 13° margine postico recto, angulis posticis rectis vel rotundate rectangulis, 1°, 3°, 5°, 8°, 10°, 12°, 14° margine postico elevato sinuato, angulis parum productis, rotundate acuminatis. *Scutum ventrale* 15^{um} fovea longitudinali profundiore, cetera omnia plana. *Pori coxales* numerosi, rotundi, in 3–4 series irrégulares dispositi. *Pedes* primi paris calcaribus 2, 3, 2. *Pedum analium* articulus primus calcaribus binis, altero majore inferiore, altero minore laterali armatus. *Pedes anales* ungue singulo, calcaribus 1, 4, 3, 1—1, 4, 3, 2 armati. *Color* non manifestus.

Longitudo corporis 18 millim.

Hab. in Sierra Nevada (*G. Eisen*).

2. *Lithobius pusio*, n. sp.

Lamina cephalica subcircularis, eadem fere latitudine ac longitudine, setis minimis sparsissimis. *Antennæ* breviores, articulis 20 plerumque brevibus, crassis compositæ, ex quibus ultimus longissimus, longitudine quatuor præcedentes junctos æquans. *Oculi* ocellis 6 magnis in 2 series

(1 + 3, 2) digestis. *Coxæ* pedum maxillarium secundi paris sinu mediano lato et profundo, dentibus 5 + 5 validis nigris armatæ. *Scuta dorsualia* omnia angulis posticis rotundatis, 1°, 3°, 5°, 8°, 10°, 12°, 14° margine postico medio sinuato, 2°, 4°, 6°, 7°, 9°, 11°, 13° recto. *Scuta ventralia* plana. *Pori coxales* 2, 3, 3, 2, rotundi (♂). *Pedes* primi paris calcaribus 1, 1, 1. *Pedum analium* articulus primus calcaribus binis, majore ventrali, minore laterali armatus. *Pedes anales* longissimi, subtenuis, rigide et sparse setosi, ungue singulo, calcaribus 1, 3, 2, 0 armati. *Color* dorsi non manifestus; caput castaneum, antennarum interiore parte nigra, exteriori pallidiore; venter cum pedibus pallide griseus.

Longitudo corporis 8–9 millim., antennarum 2·5–3 millim., pedum analium 4 millim.

Hab. in California ad San Francisco (*G. Eisen*).

3. *Lithobius paradoxus*, n. sp.

Lamina cephalica subquadrata, latitudine paullo majore quam longitudine, margine postico elevato recto, setis magno intervallo distantibus vestita, glabra, evidentissime reticulata. *Antennæ* magnitudine dimidiam corporis longitudinem fere æquant, articulis 20 irrigue setosis, crassiusculis, compositæ. *Oculi* longitudine fere triplo majore quam altitudine, ocellis 8 in 4 series transversales (2, 2, 2, 2) digestis. *Coxæ* pedum maxillarium secundi paris dentibus 2 + 2 armatæ. *Scuta dorsualia* omnia angulis posticis rotundatis, 3°, 5°, 8°, 10°, 12°, 14° margine postico sinuato, 1°, 2°, 4°, 6°, 7°, 9°, 11°, 13° recto. *Scuta ventralia* plana vel convexiuscula. *Pori coxales* 1, 2, 2, 2 rotundi (♂). *Pedes* primi paris calcaribus 1, 2, 1. *Pedum analium* articulus primus inermis. *Pedes anales* incrassati, ungue singulo, calcaribus 1, 2, 1, 0 armati. *Color* brunneus, capite antennisque nigrioribus, scutis ventralibus cum pedibus, præsertim analibus, pallidioribus.

Longitudo corporis 11 millim., antennarum 4–4·5 millim., pedum analium 3·5 millim.

Hab. in California circa urbem San Pedro (*G. Eisen*).

Species processu magno piloso quarti articuli pedum analium (♂) insignis.

4. *Lithobius obesus*, n. sp.

Lamina cephalica subquadrata, eadem fere longitudine ac latitudine, margine postico subrecto, setis longis rigidis parcius

vestita. *Antennæ* breviores, tertiam partem longitudinis corporis æquantes, articulis 20 cylindræis longe setosis compositæ, 6 interioribus longissimis, ultimo longitudine minore quam 3 præcedentibus junctis. *Oculi* ellipsoidei, longitudine duplo majore quam altitudine, ocellis 10, postico magno transverso, ellipsoideo, ceteris in 3 series digestis, ocello mediæ seriei postico maximo, rotundo. *Coxæ* pedum maxillarium secundi paris dentibus 2 + 2 validis armatæ, marginibus antico-lateralibus setis 4-5 longissimis vestitæ, sinu mediano lato, haud profundo. *Scuta dorsualia* omnia angulis posticis rotundatis, 3°, 5°, 8°, 10°, 12°, 14° margine postico elevato sinuato, 1°, 2°, 4°, 6°, 7°, 9°, 11°, 13° recto, non elevato. *Scuta ventralia* omnia plana, posteriora præsertim dense pilosa. *Pori coxales* 2, 3, 3, 3 rotundi (♀). *Pedes* primi paris calcaribus 1, 2, 1. *Pedum analium* articulus primus calcarum singulo laterali minore (vix visibili) armatus. *Pedes anales* breves, plus vel minus incrassati, ungue singulo, calcaribus 1, 3, 2, 1 armati. *Unguis genitalium* femineorum magnus, integer. *Color* —.

Longitudo corporis 13 millim., antennarum 5 millim., pedum analium 4 millim.

Hab. in California ad Sauzelito haud procul ab urbe San Francisco (*G. Eisen*). Unum tantum specimen (♀) vidimus.

5. *Lithobius Kochii*, n. sp.

Lamina cephalica obcordata, paullo latior quam longior, pilosa.

Antennæ breves, tertiam partem longitudinis corporis haud multo superantes, articulis 20 cylindræis compositæ. *Oculi* ocellis 9, in 3 series longitudinales curvatas digestis (1 + 3, 3, 2). *Coxæ* pedum maxillarium secundi paris dentibus 2 + 2 armatæ. *Scuta dorsualia* omnia angulis posticis rectis vel rotundate rectangulis, marginibus valde elevatis. *Pori coxales* 2, 3, 3, 3 rotundi (♀). *Pedes* primi paris calcaribus 0, 1, 1. *Pedum analium* articulus primus calcarum singulo laterali armatus. *Pedes anales* breves, haud incrassati, longitudine antennas æquantes, unguibus binis, calcaribus 1, 3, 2, 0 armati. *Unguis genitalium* femineorum bilobus; calcarium duo paria. *Color* dorsi testaceo-brunneus.

Longitudo corporis 11 millim., antennarum et pedum analium 4 millim.

Hab. in California ad Sauzelito (*G. Eisen*).

6. *Lithobius megaloporus*, n. sp.

Lamina cephalica obcordata, hirsuta, margine postico subrecto

clevato, parte antica sulco profundiore a postica sejuncta. *Antennæ* perbreves, articulis 19-20 compositæ, ex quibus ultimus longissimus, tres antecedentes junctos longitudine æquans, 2°, 3°, 8°, 9°, 10°, 14°, 15°, 16° mediocribus, ceteri latitudine duplo majore quam longitudine minimi. *Oculi* ocellis 7 magnis in 2 series (1 + 3, 3) digestis. *Coæ* pedum maxillarium secundi paris dentibus 2 + 2—3 + 3 crassis, acumine nigris armatæ, sinu mediano lato, haud profundo. *Scuta dorsualia* 9^{um}, 11^{um}, 13^{um} angulis productis, 2^{um}, 4^{um}, 6^{um}, 7^{um} margine postico recto, 1^{um}, 9^{um} convexo, 3^{um}, 5^{um}, 8^{um}, 10^{um}, 12^{um}, 14^{um} sinuato. *Scuta ventralia* omnia, præsertim marginibus, setis longis, magnis vestita, medii corporis sulco profundiore longitudinali mediano, laterali minore et brevior, ex angulo postico laterali excurrente. *Pori coxales* 2, 2, 1, 1, 1 maximi, rotundi. *Pedes* primi paris calcaribus 1, 1, 1. *Pedum analium* articulus primus calcaribus nullis, setis 2 longioribus, altera ventrali, altera laterali armatus. *Pedes anales* perbreves, longitudinem antennarum non assequentes, incrassati, ungue singulo, calcaribus 0, 1, 1, 0 armati. *Color* dorsi testaceo-brunneus, laminis ventralibus pedibusque pallidioribus.

Longitudo corporis 12 millim., antennarum 4 millim., pedum analium 2·5 millim.

Hab. in California ad San Francisco (*G. Eisen*).

Species ab omnibus huc usque cognitis diversa; poris coxalibus in pedum paribus 11°, 12°, 13°, 14°, 15° locatis.

7. *Lithobius eucnemis*, n. sp.

Lamina cephalica obcordata, fere æque longa ac lata. *Antennæ* longiores, dimidiam partem corporis longitudinis fere assequentes, articulis 20 (24) cylindraceis, rigide pilosis compositæ. *Oculi* ocellis 16 in 4 series curvatas digestis (1 + 4, 4, 4, 3). *Coæ* pedum maxillarium secundi paris dentibus 3 + 3 armatæ. *Scuta dorsualia* 9^{um} angulis rotundatis, 11^{um} et 13^{um} angulis parum productis. *Pori coxales* 4, 5, 5, 4 rotundi. *Pedes* primi paris calcaribus 1, 2, 1. *Pedum analium* articulus primus calcaribus singulo laterali armatus. *Pedes anales* breviores, parum incrassati, unguibus binis, calcaribus 1, 3, 3, 1. *Unguis genitalium* femineorum bilobus; calcarium duo paria, exterius majus. *Color* castaneus vel brunneus.

Longitudo corporis 13·5 millim., antennarum 6 millim., pedum analium 5 millim.

Hab. in Mount Lebanon (*G. Eisen*).

8. *Lithobius Saussurei*, n. sp.

Lamina cephalica obcordata, fere æque longa ac lata, lateribus semicirculariter rotundatis, lævis, pilis sparsis vestita. *Antennæ* sat longæ, corporis dimidiam longitudinem haud assequentes, articulis 27 parce setosis, ultimo penultimum longitudine haud multo superante, compositæ. *Oculi* —. *Coxæ* pedum maxillarium secundi paris dentibus 5+5 nigerrimis, brevibus, validis armatæ, sinu mediano subprofundo. *Scuta dorsualia* anteriora levius, posteriora manifestius rugulosa, at non granulata, subglabra, 9^{um}, 11^{um}, 13^{um} angulis productis, 7^{um} margine postico medio profunde sinuato. *Pori coxales* 5, 6, 7, 6 magni, subrotundi. *Pedes* primi paris calcaribus 2, 3, 2. *Pedum analium* articulus primus calcaribus singulo, laterali armatus. *Pedes anales* breves, sat inflati, unguibus binis, calcaribus 1, 3, 3, 1 armati. *Unguis genitalium* femineorum obsolete trilobus, lobo mediano laterales haud multo superante; calcarium duo paria. *Color* castaneus vel brunneus.

Longitudo corporis 23 millim., antennarum 9 millim., pedum analium 6-7 millim.

Hab. in Mexico circa urbem Orizaba (*H. de Saussure*). Unum tantum specimen (♀) vidimus.

Upsala, February 10, 1875.

XXV.—*Do Varieties wear out, or tend to wear out?*

By Professor ASA GRAY*.

THIS question has been argued from time to time for more than half a century, and is far from being settled yet. Indeed it is not to be settled either way so easily as is sometimes thought. The result of a prolonged and rather lively discussion of the topic about forty years ago in England, in which Lindley bore a leading part on the negative side, was, if we rightly remember, that the nays had the best of the argument. The deniers could fairly well explain away the facts adduced by the other side, and evade the force of the reasons then assigned to prove that varieties were bound to die out in the course of time. But if the case were fully reargued now, it is by no means certain that the nays would win it. The most they could expect would be the Scotch verdict, "not proven,"—and this not because much, if any, additional evidence of the actual wearing out of any variety has turned up since, but because a

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